



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,000	08/06/2003	Woo-sik Eom	1293.1801	7500
21171	7590	01/13/2006	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			ALPHONSE, FRITZ	
			ART UNIT	PAPER NUMBER
			2133	

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,000

Applicant(s)

EOM, WOO-SIK

Examiner

Fritz Alphonse

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 8-11 is/are allowed.
6) ☒ Claim(s) 1-7, 12-14 and 17-25 is/are rejected.
7) ☒ Claim(s) 15 and 16 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 4, 5, 12, 13, 14, 19, 24 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Particularly, as to claims 1, 12, 13, 14, 19, 24 and 25, the variable “n” of the claimed limitation “(n-1)-th sector” is not clearly defined.

3. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The use of “wherein if” renders the claim indefinite. The claim needs to be written in a positive form, such as “wherein the sector numbers contained in the block are sequentially increasing.”

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. Pat. No. 6,160,777) in view of Takashi (U.S. Pat. No. 6,519,715).

As to claim 1, Kim (figs. 1-14) discloses a block synchronization detection apparatus in a system having a decoder that decodes an error correction code in units of blocks comprising a plurality of sectors, the apparatus including: an operator performing an operation on a predetermined last sector number contained in a block, based on a predetermined operation relation (col. 3, lines 32-51).

Kim does not explicitly disclose “a comparator comparing a result of the operation output from the operator with a predetermined threshold value” and outputting the result of the comparison as a block synchronization signal.

However, in the same field of endeavor, Takahashi (11) discloses a comparator (166) comparing a result of the operation output from the operator with a predetermined threshold value (col. 10, lines 62-21).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Kim with the signal processing apparatus, as disclosed by Takashi. Doing so would provide a signal processing apparatus capable of reducing the latency due to data errors (col. 2, lines 59-61).

As to claims 6-7, Takashi discloses an apparatus, wherein a threshold value is set to determine block synchronization when errors occur in a plurality of the sector numbers; the threshold value is set to determine block synchronization when a first sector number for the block is not detected (col. 10, lines 62-21).

As to claims 20-23, the claims have substantially the limitations of claim 1; therefore, they are analyzed as previously discussed in claim 1 above.

Art Unit: 2133

As to claims 13 and 17-18, method claims 13 and 17-18 correspond to apparatus claim 1; therefore, they are analyzed as previously discussed in claim 1 above.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Takashi as applied to claim 1 above, and further in view of Tanoue (U.S. Pat. No. 6,747,942).

As to claim 2, Kim does not explicitly disclose “a comparator compares the result of the operation with the predetermined threshold value based on a comparison relation set depending on whether sector numbers contained in the block are sequentially increasing or decreasing.” However, the limitations are disclosed by Tanoue (col. 1, lines 64 through col. 2 line 28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to improve upon the data recording/reproducing optical disk, as disclosed by Tanoue. By doing so, data recording/reproducing are performed with more certainty even when recording is not performed in an orderly manner in a primary area.

Allowable Subject Matter

7. Claim 8 is allowed. Independent claim 8 is allowable because none of the cited references either singular or in combination disclose a block synchronization detection apparatus in a system having a decoder including “a second block synchronization detection unit that determines whether a result of an operation using a plurality of the sector numbers contained in the block is greater than a second predetermined threshold value, and outputs a result of the determination as a block synchronization signal. ”

Claims 9-11 are allowable by virtue of dependency.

Claims 15-16 are objected because none of the cited references either singular or in combination disclose “when the sector numbers are sequentially increasing, setting the

Art Unit: 2133

comparison relation to compare whether the result of the operation is smaller than a first predetermined threshold value; and when the sector numbers are sequentially decreasing, setting the comparison relation to compare whether the result of the operation is greater than a second predetermined threshold value.”

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for all formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (Receptionist).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3824.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Application/Control Number: 10/635,000

Page 6

Art Unit: 2133

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Fritz Alphonse

Art Unit 2133

January 6, 2006



GUY LAMARRE
PRIMARY EXAMINER